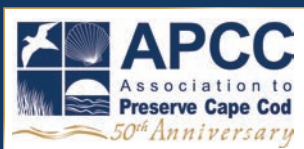


# Shore Lines

Newsletter of the Association to Preserve Cape Cod

Summer 2018



*APCC's team of interns delve into the state of Cape Cod's waters... and its critical habitats.*

See page 4  
for the story.

## The score on Cape Cod's water quality? APCC seeks the answers

APCC is very pleased to announce we have been awarded a \$50,000 grant from the Massachusetts Environmental Trust for our new program, State of the Waters: Cape Cod. This project will raise public awareness about the importance of clean water for a healthy environment and healthy communities by providing easy-to-understand report cards on the Cape's waters through an annual report.

The MET grant will enable APCC to collect information on water quality from many sources, convene an advisory committee of water experts, evaluate and report on water quality, and produce the first annual report. For this Cape-wide project, APCC will be partnering with the Cape Cod Commission, Massachusetts Bays National Estuary Program, Center for Coastal Studies and many other partners. More will be discussed about this major initiative at APCC's annual meeting on September 17. See page 7 for details.



The Massachusetts Environmental Trust is one of the Commonwealth's premier environmental philanthropy organizations and is mainly funded by environmental license plate revenues. Proceeds from the sale of environmental license plates have funded more than \$16 million in environmental protection and restoration projects. Visit MET's website at [www.mass.gov/orgs/massachusetts-environmental-trust](http://www.mass.gov/orgs/massachusetts-environmental-trust) to learn more, including information about purchasing specialty license plates that support environmental programs.

## Cape Cod moves closer to securing funding for water quality projects

In the final hours of the state legislature's 2017-2018 formal session, the short-term rental room tax bill, which contained language to establish the Cape Cod and Islands Water Protection Fund, was formally adopted by the legislature and was sent to Governor Charlie Baker for his signature—a cause for momentary celebration. However, after the legislative session concluded, the governor returned the bill to the legislature with changes to the room tax language. As this issue of *Shore Lines* goes to press, it remains uncertain whether differences between the legislature and the governor will be resolved this year.

Although the last-minute snag is frustrating, the successful adoption of the Cape Cod and Islands Water Protection Fund by the legislature is still a remarkable step forward in efforts to protect the Cape's water resources. In addition to the bill's authorization of a tax on short-term rentals, the legislation includes a supplemental 2.75 percent tax on hotel and home rentals on Cape Cod. This additional revenue would go into the Water Protection Fund, a dedicated fund used to assist towns in implementing critically important projects to restore water quality in the Cape's bays, estuaries and ponds.

APCC has been the chief advocate for the Water Protection Fund, collaborating with the Center for Coastal Studies, Cape Cod Chamber of Commerce and other community leaders, and working closely with the Cape Cod legislative delegation in drafting language for the legislation. APCC is very grateful for the leadership of the Cape's legislators in shepherding the bill through the legislative process.

As the session drew to a close, there was a flurry of activity on other environmental legislation APCC has been advocating for or following. Important bills on water quality, climate change, land use reform, open space protection, pollinator habitat protection and other environmental issues were still being deliberated. Look for a full report on the outcome of these environmental bills in the 2018 winter issue of *Shore Lines*.



## APCC to serve again as MassBays Regional Service Provider

In the year ahead, APCC will again serve as the Regional Service Provider for the Cape Cod region of the Massachusetts Bays National Estuary Program. APCC has served in this role since 2006.

Established as a National Estuary Program in 1990, the MassBays region covers Massachusetts Bay, Cape Cod Bay and Ipswich Bay. To provide technical assistance to the 50 coastal communities in the MassBays area, MassBays works with partner organizations to host MassBays regional coordinators in five regions. The coordinators work with communities in their regions to restore and protect estuaries and coastal habitat.

On Cape Cod, priorities for the coming year include working with municipalities and organizations to restore and protect estuarine habitat, improving water quality through APCC's new State of the Waters: Cape Cod project, promoting regional stormwater management and supporting coastal resilience and coastal adaptation efforts that utilize green infrastructure. Past achievements include designation of Cape Cod Bay as a No Discharge Area for boat sewage, restoration of salt marsh and fish passage in Brewster and Sandwich, setting up a Cape-wide river herring volunteer monitoring program and formation of the Cape Cod Stormwater Managers group to work together on common stormwater issues. For more information, contact Jo Ann Muramoto at [jmuramoto@apcc.org](mailto:jmuramoto@apcc.org).

***Volunteers help APCC in so many ways—from special projects to photography to tending APCC's living landscape. Pictured here, Marcella Curry makes sure the garden is watered each week with water harvested by our rain barrels. Karen and Gerry Beetham care for new plantings and keep the remaining lawn tidy with Gerry's battery-operated lawnmower.***



**APCC recently kicked off a volunteer program. Lots of wonderful people willing to volunteer their time came forward. We'd like to hear from individuals interested in volunteering, whether it's an hour a week or on occasion. Visit [www.APCC/volunteering](http://www.APCC/volunteering) and fill out a volunteer application/talent form, or contact Kristin Andres, director of education and outreach, at [kandres@apcc.org](mailto:kandres@apcc.org).**

# APCC's 2018 intern program brings new focus on Cape Cod's water resources and habitats

Over the years, APCC has been privileged to host some extremely talented individuals through our summer internship program. This year is certainly no exception. As always, APCC's interns are performing vital work that advances protection of Cape Cod's environment and the ecological resources that define our region.

During the summer of 2018, our interns are helping to expand a monitoring program aimed at providing Cape Cod residents with timely information about the quality—and safety—of the Cape's freshwater ponds. They are assisting APCC staff with the launch of a critically important project to assess the state of Cape Cod's various water resources. (Read more about that on page 2.) And, our returning Whitlock intern is exploring and mapping some of the Cape's previously undocumented high value natural communities.

Thanks to the support of our internship program by APCC members, we have helped advance the education of undergraduate and graduate-level students who have gone on to distinguished careers as environmental professionals. To find out more about APCC's internship program and how to help ensure its important work continues, go to [www.APCC.org/internships](http://www.APCC.org/internships).



APCC'S summer intern team.



APCC interns Kathleen Mason and Kevin Johnson collect water samples on Upper Mill Pond in Brewster.



**Carl DePuy** is this year's Whitlock Intern. He is joining APCC for his ninth field season, working on mapping native wetland plant communities that make up brackish and freshwater tidal marshes at the headwaters of tidal creeks. Carl will be searching for rare wetland plant communities that are influenced by tidal inundation at marsh systems found at the Chase Garden Creek/White's Brook system in Dennis and Yarmouth, Stony Brook in Brewster, and Sesuit in Dennis.

He is also working at Stony Brook comparing the changes in upstream salinity levels with the wetland plant communities to determine how tidal processes influence plant community migration and distribution. The mapping projects will be used to help update APCC's web-based *Cape Cod Critical Habitats Atlas*, which will be an available tool for local and state agencies to assist in land management and preservation. The mapping will also add to the state's Natural

Heritage and Endangered Species Program documentation of natural communities.

Carl is continuing his education and is enrolled in Bridgewater State University's Graduate School STEM Certificate program, which has partnered with professors from the American Museum of Natural History. He also has an undergraduate degree from Huxley College of Environmental Science at Western Washington University and received his master's degree in environmental science at Green Mountain College. Carl wrote his thesis on salt marsh dieback within the Cape Cod National Seashore.

During his previous APCC internships, he wrote research papers about salt marsh migration and sea level rise, and using dredge material as sediment nourishment to help marshes keep pace with sea level rise. Carl teaches ecology and horticulture at Dennis-Yarmouth Regional High School.





**Kevin Johnson** is working on a variety of projects for APCC, but his primary focus is providing research for the State of the Waters: Cape Cod initiative. There is an abundance of data collected from different sources on Cape Cod's various water resources, and this project looks to catalog that available data into a comprehensible report card that will "grade" water quality for different water resources across the Cape. Kevin is analyzing and categorizing this data, with the goal being that the final product will better inform policy decisions on protecting and improving the Cape's water resources. Kevin is also working with fellow intern Kathleen Mason on APCC's cyanobacteria monitoring program in ponds across the Cape. They are collecting pond samples and analyzing trends for potentially harmful toxic blooms. He is also helping with APCC's Restoration Coordination Center on projects, such as monitoring sites for the Parkers River restoration project in Yarmouth and replanting marsh grass in the Sesuit Creek salt marsh in Dennis.

Kevin, who is from Brewster, is an environmental science and economics double major at College of the Holy Cross in Worcester, Massachusetts. He has a particular focus on environmental policy and hopes to ultimately return to the Cape to work on its environmental concerns long-term.



**Kathleen Mason** is APCC's 2018 Maggie Geist Intern. Her work mainly focuses on the monitoring of cyanobacteria in freshwater ponds. Cyanobacteria are microscopic aquatic organisms that can bloom on the surface of ponds and release toxins that can be harmful to humans, domestic animals and wildlife. Excessive nutrient enrichment of ponds from wastewater, stormwater, fertilizer runoff and atmospheric deposition initiates cyanobacteria growth.

With the assistance of fellow intern, Kevin Johnson, and APCC's restoration technician, Bryan Horsley, Kathleen monitors three ponds in Brewster, one in Dennis, five in Chatham and one in Falmouth. Dedicated volunteers from collaborating citizen groups, including the Friends of Chatham Waterways, Brewster Ponds Coalition and the Coonamessett Pond Association, assist with various phases of the program. This second season of APCC's monitoring program is contributing more important data and knowledge about

cyanobacteria blooms and associated toxicity levels in ponds throughout Cape Cod. Kathleen's work will assist in determining when toxic blooms are occurring so that authorities and the public are informed in a timely manner. In addition to the cyanobacteria project, Kathleen also assists the APCC Restoration Coordination Center staff with the Sesuit Creek salt marsh restoration project.

A Cape Cod native, Kathleen graduated from Colby College this past May, where she majored in environmental science. While her education and past work experience gave her a broad background, she is specifically interested in aquatic ecology, watershed management, and sustainable food systems.

*APCC staff and interns are working to protect Cape Cod's water resources and critical habitats. The continued support of our members makes this vital effort possible.*

**Have you responded to APCC's summer appeal yet? If you already have,  
THANK YOU!**

**If you haven't, please take a moment to mail in your contribution or go to  
[www.APCC.org](http://www.APCC.org) to make a secure online donation. Your gift to APCC is tax deductible.**



## APCC assists with Sesuit Creek salt marsh planting

At the Sesuit Creek salt marsh in Dennis, APCC is giving nature a boost up in the recovery process from decades of poor tidal flow and being overtaken by invasive vegetation.

The 57-acre salt marsh was restored in 2008 by replacing an undersized two-foot culvert under Bridge Street with two 10-foot by 12-foot box culverts. The result was restoration of natural tidal flow, allowing more salt water to flow to the upstream degraded marsh. This increase in salinity was successful in killing off large areas of the salt-intolerant invasive *Phragmites australis*. However, subsequent monitoring has indicated that the site has been slow to recover, with large areas previously dominated by *phragmites* still devoid of native vegetation.

Additional monitoring by APCC and the University of New Hampshire, completed in 2016-2017, determined the soil chemistry was right for native plant growth. But the elevation of these bare patches was low, making it hard for typical high marsh grasses to establish. However, the elevation was found to be similar to the surrounding low marsh where smooth cordgrass, *Spartina alterniflora*, was growing.

With this knowledge in hand and with funding from the MA Division of Ecological Restoration, APCC is working to jump start plant growth through a research planting project. This June, APCC staff along with interns, volunteers and DER, planted 350 *Spartina alterniflora* plugs obtained from a New England nursery across 36 one-meter square plots located in these bare patches. These plots will be monitored over a three-year period.

The expectation is that the plants will help capture and stabilize sediment to allow for more native plant growth while expanding two to three meters each year to help fill the bare patches. Monitoring will be done to determine the success of the project and to improve management across similar restoration sites.



## APCC remembers Donald Palladino and Jean Young

APCC is sad to note the passing this year of Donald Palladino and Jean A. Young, who will both be remembered fondly and with appreciation for their service on APCC's board of directors and for their dedication to Cape Cod environmental causes.

Don Palladino was a current member of APCC's board at the time of his death on May 27, having served since 2012. He was an avid supporter of APCC's mission and valued board member. His interests focused on other environmental efforts on the Cape, including the Wellfleet Conservation Trust. But he was best known as a leading figure in the effort to restore the Herring River estuary and salt marsh in Wellfleet. He was a founding member of the Friends of Herring River and served as its president, and worked closely with the Herring River Restoration Committee.

Jean Young served on the board of directors from 2006 through 2012, and in her last year with the board took the helm as president. She was an advocate for the preservation of the Cape, both its resources and its history. She served on the Chatham board of health for 17 years, often as chair, leading the town in water resource protection. She loved Chatham's heritage and was a dedicated volunteer at the Atwood House Museum. Jean was devoted to her family and tireless in her service to her community. She passed away on May 1.





Fifty years ago, in 1968, the U.S. Army Corps of Engineers proposed dredging out Nauset Marsh to create a deep-water port for tankers, freighters and other large ocean-going vessels. Alarmed by the looming threat to one of Cape Cod's iconic locations, a group of concerned citizens gathered in opposition to the plan. Happily, the dredging proposal was withdrawn, and from this genesis of local grassroots activism came the realization that there was a great need for a region-wide environmental guardian against other, future threats to Cape Cod. The Association to Preserve Cape Cod was born. The above photo, "Nauset Marsh Reflections" by photographer Steven Koppel, is a striking visual reminder of APCC's origins. It also exemplifies the natural beauty that exists all across the Cape and why APCC continues to work diligently to protect, preserve and restore Cape Cod's ecological resources. We thank our five decades of APCC members who have supported our mission and shared our vision for this remarkable land, Cape Cod.

*"Nauset Marsh Reflections" by Steven Koppel.*

Steve is a Cape Cod photographer and founder of the EDI Institute, a charitable organization promoting healing, connection, and self-expression through digital imagery. Learn more and watch Steve's TEDx talk at [www.ediinstitute.org](http://www.ediinstitute.org).

## *Announcing APCC's 50th Anniversary Annual Meeting*

Monday, Sept 17th

4:30 p.m. Reception at the Cape Cod Museum of Art in Dennis

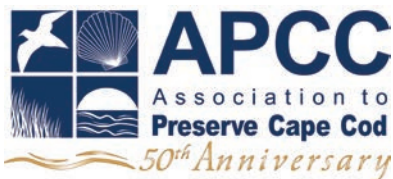
5:30 p.m. Business Meeting and Awards Ceremony Next Door at Cape Cinema

Special Honoree and Guest Speaker is Steve Curwood, Host of National Public Radio's *Living on Earth*

RSVP by Monday, September 10 at [www.APCC.org](http://www.APCC.org) or call 508-619-3185

**Join APCC in Celebrating 50 Years of Protecting Cape Cod!**





482 Main Street, Dennis, MA 02638

NONPROFIT  
US POSTAGE  
**PAID**  
CURLEY DIRECT  
PERMIT 30  
02601

### Association to Preserve Cape Cod

482 Main St., Dennis MA 02638  
508-619-3185

info@apcc.org • www.apcc.org

The Association to Preserve Cape Cod is a 501(c)(3) non-profit organization founded in 1968 to foster policies and programs that promote the preservation of natural resources on Cape Cod.

Support comes from over 3,000 members, and from gifts and grants from individuals, foundations and businesses.

#### APCC Staff

Andrew Gottlieb, *Executive Director*

Don Keeran, *Assistant Director*

Jo Ann Muramoto, Ph.D., *Director of Science Programs /  
Mass Bays Program Regional Coordinator*

Kristin Andres, *Director of Education & Outreach*

April Wobst, *Restoration Ecologist*

Bryan Horsley, *Restoration Technician*

Patrick Frye, *Membership Field Coordinator*

Laura Curry, *Information Services Director*

Lauren Powers, *Grants Administrator*

#### Board of Directors

Margo L. Fenn, *President (W. Yarmouth)*

Charles Sumner, *Vice President (Brewster)*

Robert Summersgill, *Treasurer (E. Orleans)*

Maureen O'Shea, *Clerk (W. Barnstable)*

Robert Ciolek (*W. Hyannisport*)

Michael Corrigan (*Chatham*)

DeeDee Holt (*Chatham*)

Thomas Huettner, (*Dennisport*)

Pat Hughes (*Brewster*)

Cheryl Lubin (*S. Chatham*)

Elysse Magnotto-Cleary (*Cambridge*)

Blue Magruder (*Barnstable*)

Eliza McClennen (*Harwich*)

Kris Ramsay (*Brewster*)

Taryn Wilson (*South Dennis*)

## Leave a Lasting Legacy

### Living Legacy

APCC has benefited greatly over the years from bequests from our members. Making a bequest is as easy as adding the following language to your will: "I bequeath to the Association to Preserve Cape Cod, Inc. (APCC), a charitable corporation established by law in the Commonwealth of Massachusetts, the sum of \_\_\_\_ dollars (or percentage of estate)." You can direct how you want your legacy gift to be used by choosing "the general purposes of APCC at the direction of its Board of Directors," or if you'd prefer to have your legacy live on in an endowment, you can direct it "to be added to APCC's permanent endowment."

### Wise Ways to Give

Donating appreciated securities may be a prudent way to be charitable, as you can avoid paying tax on capital gains. It's also easy! And, if you are 70 ½ or over and make a gift to APCC directly from your IRA, it counts toward your required minimum distribution—and avoids tax.

For more information, please contact APCC's executive director, Andrew Gottlieb, at 508-619-3185 or agottlieb@apcc.org.

Please note: This information should not be considered as legal, tax or financial advice. Consult your professional advisor for further information and guidance.



There's more to learn at [www.APCC.org](http://www.APCC.org).